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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,533	06/27/2001	Joun Ho Lee	8733.460.00	3207

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EXAMINER

KIELIN, ERIK J

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PC

Office Action Summary	Application No.		Applicant(s)	
	09/891,533		LEE, JOUN HO	
	Examiner		Art Unit	
	Erik Kielin		2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action responds to the Amendment filed 30 July 2003 (Paper no. 6).

Specification

1. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood: (1) what the function of the light volume adjusting layer is in the LCD; (2) how the light volume adjusting layer operates to adjust the light; (3) what source of light is being adjusted; and (4) how the second gate line is connected to and operates the light volume adjusting layer to perform its function.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

A shortened statutory period for reply to this action is set to expire ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing date of this letter.

This is repeated from the Office action filed 1 May 2003 (Paper No. 5).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first active layer must be shown or the feature(s) canceled from the claim(s). The specification states that the first active layer is

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“not shown” on p. 7, lines 13-14. Also, as it is the object of the invention, the light volume or light transmission adjusting layer controlled by the second gate line, must be shown. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

This is repeated from the Office action filed 1 May 2003 (Paper No. 5).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3 and 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not enable one of ordinary skill (1) what the function of the light volume adjusting layer is in the LCD; (2) how the light volume adjusting layer operates to adjust the light; (3) what source of light is being adjusted; and (4) how the second gate line is connected to and operates the light volume adjusting layer to perform its function.

This is repeated from the Office action filed 1 May 2003 (Paper No. 5).

Claim Rejections - 35 USC § 112, 2nd paragraph

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-3 and 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1 and 13, as presently written, make it unclear whether it is the light volume adjusting (light transmission restricting) layer or the pixel electrode that is controlled by the second gate (scanning) line.

Independent claim 8, as presently written, makes it unclear whether it is the substrate or the light transmission restriction layer that is controlled by the second scanning line.

The remaining claims are rejected for depending from the above rejected claims.

This is repeated from the Office action filed 1 May 2003 (Paper No. 5).

Response to Arguments

7. Applicant's arguments filed 30 July 2003 have been fully considered but they are not persuasive.

Applicant's remarks regarding the drawings are noted and are not found persuasive. Applicant's alleged novelty is the connection between the active layer and the second gate line. If no one has ever done this, then it is unclear how one of ordinary skill would know how to do this. Furthermore, given that the disclosure fails the written description requirement, for reasons addressed above and further below, it is especially necessary to show the novelty in the figures.

Applicant argues that the specification is comprehensible and enabling.

Examiner respectfully disagrees for reasons already of record, as repeated above from the previous Office action filed 1 May 2003.

Applicant argues,

“Applicant respectfully submits the terms, phrases, and modes of characterization used to describe the present invention are sufficiently consonant with the art to which the invention pertains, and with which it is most clearly connected, to enable the Examiner to make a reasonable search.” (See p. 9, first paragraph of Applicant’s Remarks filed 30 July 2003.)

Examiner respectfully disagrees. Rather, Examiner herein presents **evidence** that Applicant is, in fact, **not** using art-recognized vernacular of the LCD art. Evidence follows and is attached in Appendix A.

On page 1 of Appendix A, the phrases “light volume adjusting layer” and “light volume adjusting film” (corresponding to L numbers 1 and 2) were searched in the USPTO, US Pre-Grant Publications, EPO, JPO, DERWENT, and IBM Technical Disclosure Bulletin databases. The only hit was the US Patent Application Publication of the instant application. In other word, **no one** uses Applicant’s terminology except Applicant. Therefore it **cannot** be “sufficiently consonant with the art to which the invention pertains” as alleged by Applicant. Otherwise, other hits would have resulted from the search phrase.

Moreover, all publications assigned to LG Phillips LCD were searched corresponding to L Number 3. The search resulted in 67 hits. Of the 67 publications, one corresponds to the results of L Number 1. The remaining 66 hits fail to use the phrases “light volume adjusting layer” and “light volume adjusting film.” Therefore, even LG Phillips LCD does **not** use the terminology of the instant application. This additionally begs the question as to why LG Phillips LCD would

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avoid the use of the terminology “light volume adjusting layer” in the 66 other publications, if -- as alleged by Applicant-- “the terms, phrases, and modes of characterization used to describe the present invention are sufficiently consonant with the art to which the invention pertains.”

In addition, the phrase “light transmission adjusting layer” was searched, consonant with terminology used in the instant specification. There were only two hits, JP 2000-67765 A and JP 10-104620 A (see form PTO-892). The “light transmission adjusting layer” in the first listed publication is a passive layer which reduces light transmission of a given wavelength. It is passive and is not electrically controlled and is on a **plasma** display, not an LCD. It therefore cannot be related to the “light volume adjusting layer” of the instant invention. The “light transmission adjusting layer” (labeled “13” in the Fig. 1) in the second publication in the list is directed to a layer placed over the light source itself and is apparently unrelated that in the instant specification.

In addition, the phrase “light transmittance adjusting layer” was searched, consonant with a variation on transmission, e.g. transmittance. This search phrase produced 25 hits (corresponding to L Number 6). Aside from one of the two publications cited in the previous paragraph (which also used the phrase “light transmittance adjusting layer”, the remaining publications were drawn to heat-sensitive recording material --not liquid crystal displays. (See pages 2 and 3 of Appendix A for the list of references.

The phrase finally searched in all databases was, “light X adjusting layer” or “light X adjusting film” where X is any word, and where at least one of “liquid crystal display” or “LCD” is also listed in the publication. Of the 16 publications returned, 12 publications use the terminology “light adjusting layer” specifically to refer to the **liquid crystal layer** --not an

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amorphous silicon layer. Of the remaining 4 hits ($16-12=4$), 2 publications are duplicates of the search results corresponding to L Number 4, discussed above. Of the remaining 2 hits ($4-2=2$), one is directed to a “light *reflectance* adjusting layer” not applicable to the instant invention. The remaining 1 hit, KR 2002058605 A, assigned to LG Phillips LCD (the assignees of the instant invention; item number 11 in the list) is directed to a “light *intensity* adjusting layer” controlled by the second gate line, which appears to be identical to the instant invention but not provided an IDS. Surprisingly, the priority document of the instant application did not show up in the search results.

In summary, no one other than LG Phillips LCD uses the terminology “light volume adjusting layer” or “light intensity adjusting layer.” Even LG Phillips LCD does **not** use the terminology “light volume adjusting layer” in any of the 66 publications corresponding to the search results corresponding to L Number 3 which returns any publication in the USPTO, EPO, JPO, DERWENT databases having LG Phillips LCD as the assignee. Accordingly, the above evidence contracts Applicant's allegation that “the terms, phrases, and modes of characterization used to describe the present invention are sufficiently consonant with the art to which the invention pertains, and with which it is most clearly connected, to enable the Examiner to make a reasonable search.”

Applicant arguments regarding MPEP 2164.04, on p. 10 are noted. More specifically, Applicant argues that “Examiner should specifically identify what information is missing and why one skilled in the art could not supply the information without undue experimentation.” Examiner did supply that which was missing, and Applicant has quoted these missing items several times in the Remarks. The missing items are (1) through (4), as noted above in the

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objection to the specification and the rejection of the claims under 35 USC 112(1). Given the evidence provided above that Applicant is not using art-recognized vernacular of the LCD art, Examiner respectfully submits that the missing items indicated are sufficient to support the rejection. Moreover, Examiner cannot address “what information is missing” since the specification is unclear as to the missing items are (1) through (4).

Applicant arguments regarding MPEP 2164.05(b), beginning on p. 10 are noted. Again, Examiner respectfully submits that the evidence above that Applicant fails to use art-recognized vernacular of the LCD art is sufficient of a “reasonable basis” upon which to base the rejection.

Applicant arguments regarding MPEP 2173.02, beginning on p. 11 are noted. Applicant argues that those skilled in art would understand what is claimed in light of the specification. Examiner respectfully disagrees based upon the evidence above. Since Applicant has failed to provide any basis for one of ordinary skill to know the missing items are (1) through (4) listed in the rejection. If one of ordinary skill cannot find out what a “light volume adjusting layer” is and how it functions in the specification or in the art, one of ordinary skill cannot know what Applicant is claiming in the claims.

Finally, Applicant argues in the paragraph bridging pages 11 and 12 of the Remarks, “Applicant respectfully submits the invention defined in the claims 1-3 and 8-16 must still be considered in view of any pertinent prior art” in accordance with MPEP 2143.03. As shown above, “light volume adjusting layers” in LCDs cannot be found, yet Applicant indicates that this is “sufficiently consonant with the [LCD] art” which has been proven a false allegation. Moreover, Applicant has provided no IDS. Accordingly, in the context of an incomprehensible disclosure, failing written description requirement, no pertinent art can be found.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik Kielin whose telephone number is 703-306-5980. The examiner can normally be reached on 9:00 - 19:30 on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr., can be reached at 703-308-4940. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Erik Kielin
Primary Examiner
November 23, 2003